Installation and Maintenance Manual	IM-820
	Group: **Unitary**
	Part Number: **IM-820**
	Date: **March 2005**
	Supersedes: New

MCM Ceiling/Floor Convertible Split Type Air Conditioner

Indoor Unit

Wireless Remote Control (Standard)

Outdoor Unit

Wired Wall Control (Optional)

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Model Numbers

Cooling Only

Indoor Unit	Outdoor Unit	Nominal Cooling - BTUH
MCM20D	MLC20B	20,000
MCM25D	MLC25B	25,000
MCM30D	MLC30C	30,000
MCM40D	MLC40C	40,000
MCM50D	MLC50C	50,000

Cooling/Heat Pump

Indoor Unit	Outdoor Unit	Nominal Cooling - BTUH	Nominal Heating - BTUH
MCM20DR	MLC20BR	20,000	21,000
MCM25DR	MLC25BR	24,000	25,000
MCM30DR	MLC30CR	30,000	32,000
MCM40DR	MLC40CR	40,000	41,000
MCM50DR	MLC50CR	50,000	48,000

General Information

This manual provides the installation procedures so your air conditioner unit operates properly and provides you the service it was designed to provide.

Special adjustment may be necessary to suit local requirements. Before using your air conditioner, please read this instruction manual carefully and keep it for future reference.

Safety Precautions

Before installing the air conditioner unit, please read the following safety precautions carefully..

⚠ WARNING

- The installer must determine and follow all applicable codes and regulations. This equipment presents hazards of electricity, rotating parts, sharp edges, heat and weight. Failure to read and follow these instructions can cause property damage, equipment damage, severe personal injury or death. This equipment must be installed by experienced, trained personnel only.
- Do not allow flammable fumes near unit or areas sharing ventilation.
- Installation and maintenance must be performed by qualified persons who are familiar with local code and regulation, and experienced with this type of appliance.
- All field wiring must be done in accordance with industry standards and local codes.
- Inspect the unit nameplate to be certain the voltage is the same as the voltage that will be delivered to the unit. Improper electrical wiring can cause property damage, sever personal energy or death.
- The unit must be GROUNDED.
- Make sure wiring does not touch refrigerant piping, compressor, or any moving parts of the fan motors.
- Confirm that the power supply is switched OFF before installing or servicing the unit.

⚠ WARNING

Hazardous Voltage!

Disconnect all electrical power including remote disconnects before servicing. Failure to disconnect power before servicing can cause severe personal injury or death.

⚠ CAUTION

Use copper conductors only. Unit terminals are not designed to accept other types of conductors. Failure to do so can cause damage to the equipment.

⚠ CAUTION

- Do not install in a laundry room. Humidity and laundry chemicals can corrode unit components.
- Do not install the unit where leakage of flammable gas may occur. If gas leaks and accumulates around the unit, it can cause a fire.
- Connect drainage piping properly. If drainage piping is not connected properly, water leakage can cause property damage.
- Do not overcharge the unit. This unit is factory precharged. Overcharge will cause over-current or damage to the compressor.
- Keep panel closed. Unsecured panels will cause the unit to operate noisily.

NOTICE

This product was carefully packed and thoroughly inspected before leaving the factory. Responsibility for its safe delivery was assumed by the carrier upon acceptance of the shipment. Claims for loss or damage sustained in transit must therefore be made upon the carrier, as follows:

VISIBLE LOSS OR DAMAGE

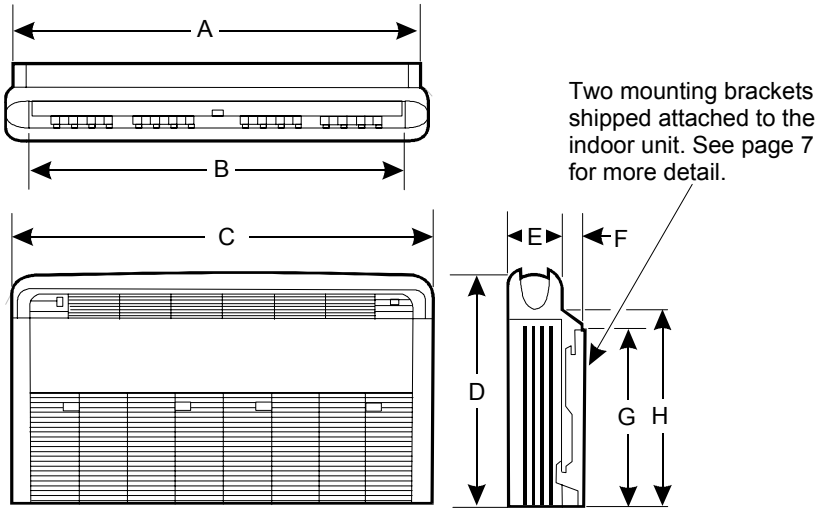
Any external evidence of loss or damage must be noted on the freight bill or carrier's receipt, and signed by the carrier's agent. Failure to adequately describe such external evidence of loss or damage may result in the carrie's refusing to honor a damaged claim. The form required to file such a claim will be supplied by the carrier.

CONCEALED LOSS OR DAMAGE

Concealed loss or damage means loss or damage which does not become apparent until the product has been unpacked. The contents may be damaged in transit due to rough handling even though the carton may not show external damages. When the damage is discovered upon unpacking, make a written request for inspection by the carrier's agent within fifteen (15) days of the delivery date. File a claim with the carrier since such damage is the carrier's responsibility.

Unit Dimensions

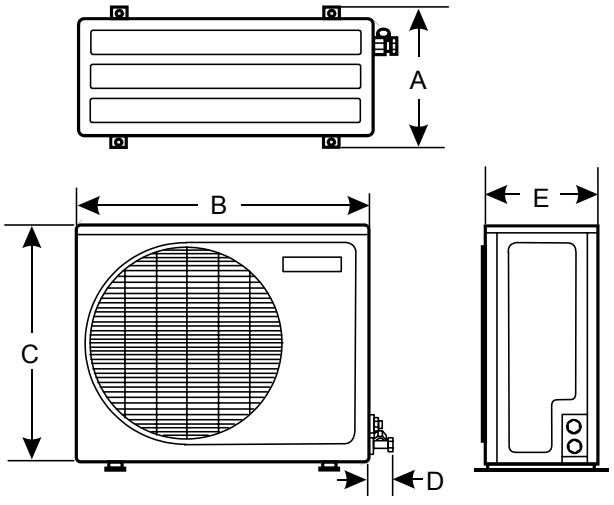
Indoor Units



Model MCM	20D/DR	25D/DR	30D/DR	40D/DR	50D/DR
A	46 1/4"	46 1/4"	46 1/4"	66"	66"
B*	42 1/2"	42 1/2"	42 1/2"	62 1/4"	62 1/4"
C	47 3/4"	47 3/4"	47 3/4"	67 1/2"	67 1/2"
D	26 1/2"	26 1/2"	26 1/2"	26 1/2"	26 1/2"
E	6 1/4"	6 1/4"	6 1/4"	6 1/4"	6 1/4"
F	2 1/4"	2 1/4"	3 3/4"	3 3/4"	3 3/4"
G	20 1/2"	20 1/2"	20 1/2"	20 1/2"	20 1/2"
H	22"	22"	22"	22"	22"

*Discharge air opening width.

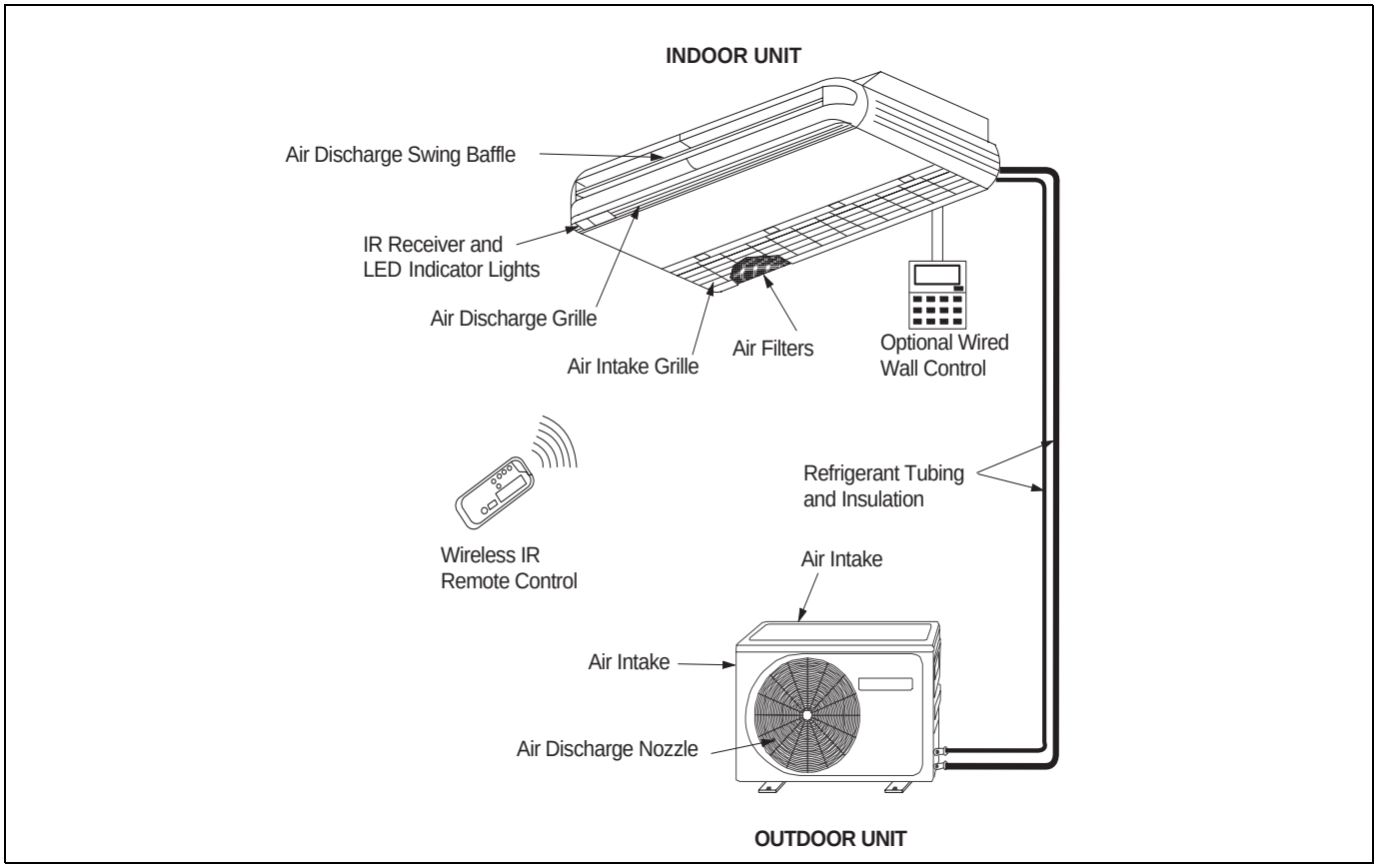
Outdoor Units



Model MLC	20 & 25 B/BR	30,40 & 50C/CR
A	16"	19 1/4"
B	33"	40 1/2"
C	25 1/2"	33 1/2"
D	2 1/4"	3 1/2"
E	13 1/4"	15 3/4"

Installation Guidelines

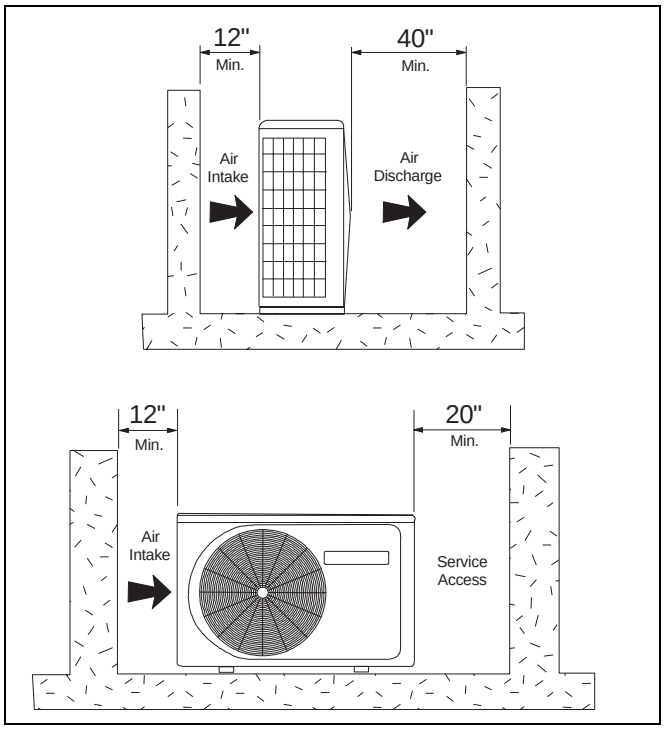
Installation Diagram



Installation of Outdoor Unit

Install the outdoor unit in a manner to prevent mixing hot discharged air with return air flow. Also, the unit should be a suitable distance from obstructions *See Figure 1* for minimum installation clearances. Double the dimensions shown if surroundings are more than 72" tall, or if there is an obstruction on top. Select the coolest possible place where intake air temperature is not greater than the outside air temperature (maximum 113°F). See Table 1, Page 7 for weight of outdoor unit.

Figure 1. Outdoor Unit Minimum Clearances



Installation of the Indoor Unit

General

Electrical supply and installation must conform to local codes and regulations.

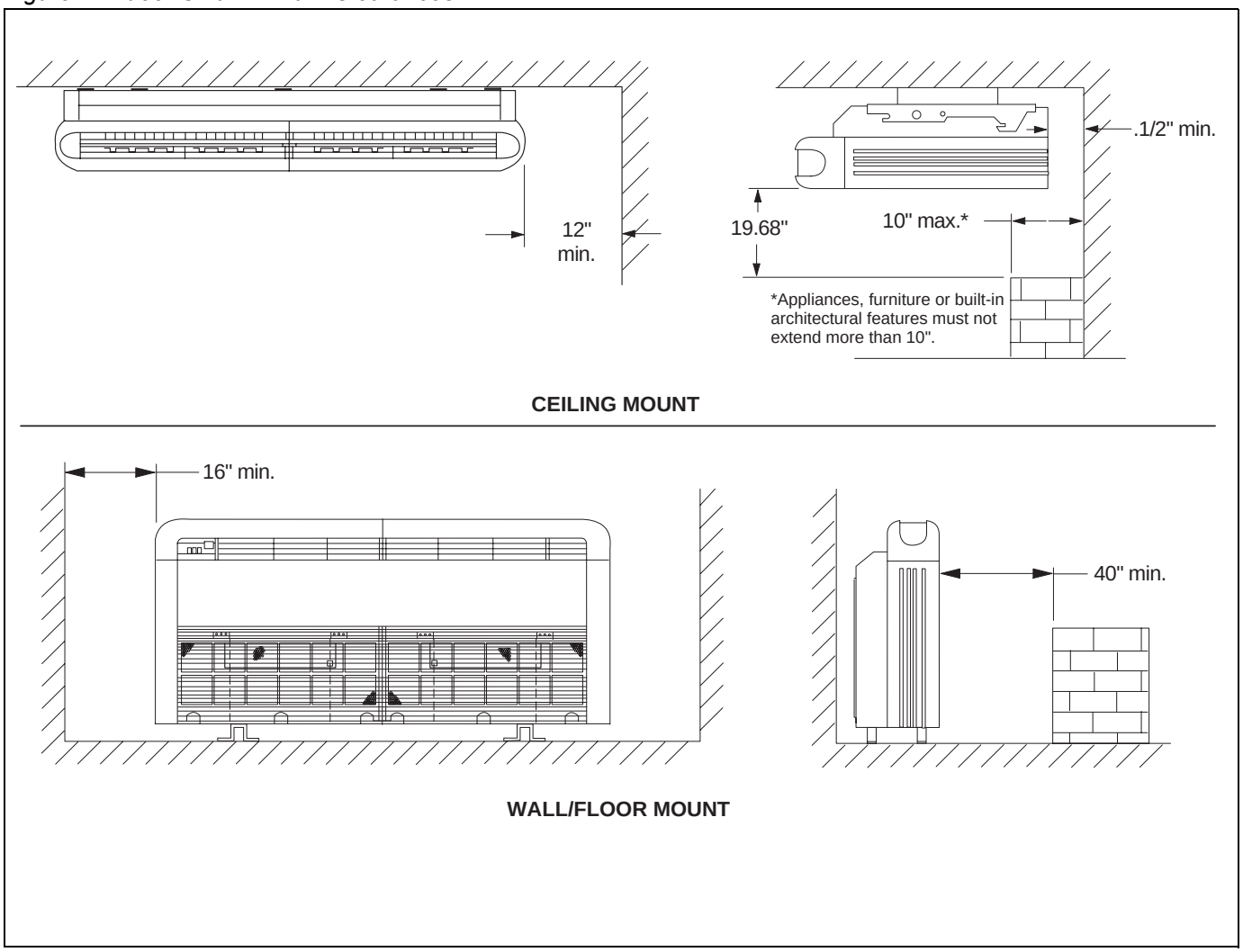
Voltage supply fluctuation must not exceed ±10% of the rated voltage. Electricity supply lines must be independent of welding transformers which can cause high supply fluctuation.

Locate the installation for convenient wiring and piping.

Indoor Unit Clearances

The indoor unit must be installed in a manner to prevent mixing the cool discharged air with the hot return air. Follow the installation clearances shown in *Figure 2.* Do not place the indoor unit in direct sunlight. The location must be suitable for piping and drainage, and be away from doors or windows.

Figure 2. Indoor Unit Minimum Clearances



Standard Mounting

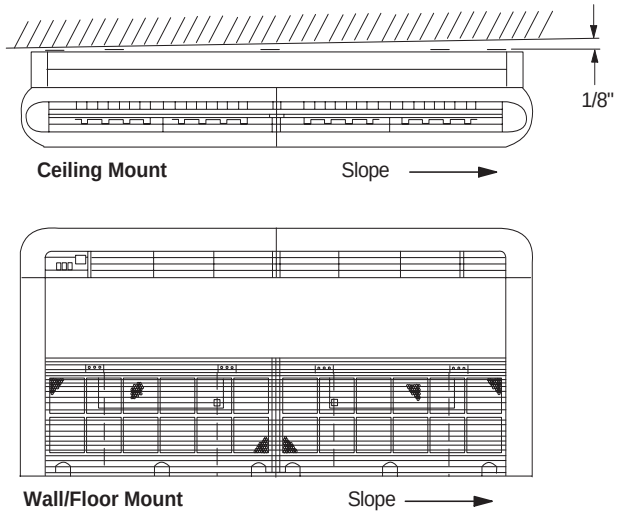
Make sure the ceiling or wall is strong enough to support the weight of the unit (*See Table 1*). Remove the mounting brackets from the unit and secure to wall or ceiling as required.

The unit must be level front to back and sloped 1/8" towards condensate drain (*See Figure 3*).

Table 1: Unit Weight - lbs.

Model	20	25	30	40	50
Weight ID Unit	95	99	99	154	154
Weight OD Unit	125	128	209	220	231

Figure 3. Slope for condensate drainage

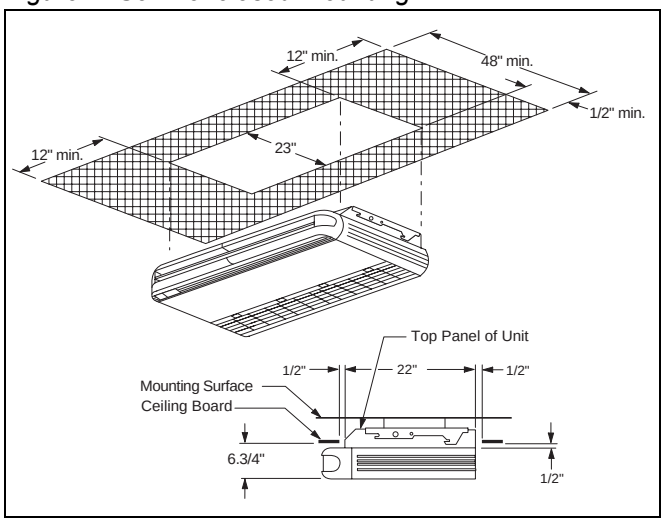


Semi-enclosed Mounting

In case the unit is to be half-recessed into a false ceiling, make sure the unit is well-aligned with the ceiling.

Provide the installation space as shown in *Figure 4*.

Figure 4. Semi-enclosed Mounting



Refrigerant Tubing

Tubing Length & Elevation

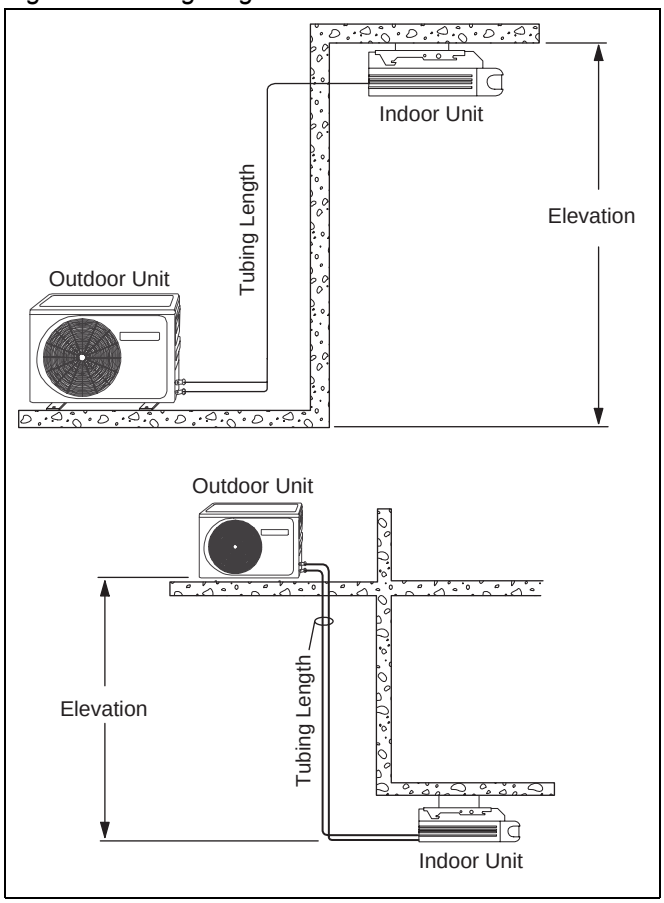
Copper tubing to connect the indoor and outdoor units is supplied by others or it can be ordered from the factory. *See Table 2 and Figure 5* for requirements.

Table 2: Refrigeration Tubing Requirements

Model	20	25	30	40	50
Maximum Length, ft.	49'	49'	115'	115'	115'
Max. elevation, ft, H	26'	26'	49'	49'	49'
Max. number of bends	10	10	10	10	10
Liquid tube size - OD	1/4"	3/8"	3/8"	3/8"	3/8"
Gas tube size - OD	5/8"	5/8"	5/8"	3/4"	3/4"

Note: The refrigerant pre-charged in the outdoor unit is for tubing length up to 25 ft. See Table 7 for additional R-22 refrigerant required on runs longer than 25 ft.

Figure 5. Tubing length and elevations



Tubing Preparation

- Do not use contaminated or damaged copper tubing. Do not remove plastic, rubber plugs or brass nuts from the valves, fittings, tubings and coils until you are ready to connect suction or liquid line into valves or fittings.
- If any brazing work is required, ensure that the nitrogen gas is passed through coil and joints while the brazing work is done. This will eliminate soot formation on the inside wall of the copper tubing.
- Cut the copper tubing with a tube cutter (*See Figure 6*).
- Remove burrs from cut ends by holding tubing downwards to prevent metal chips from entering the tubing.
- Slide the flare nuts, for both the indoor unit and outdoor unit onto the copper tubing.
- Flare the tubing as shown in *Figure 6 and Table 3*.
- The flare must be even and not cracked or scratched.

Figure 6. Cutting and Flaring Tube

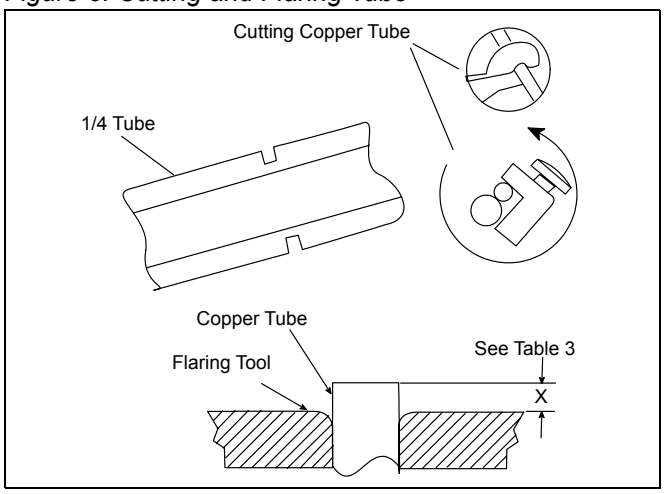


Table 3: Tube Flaring Dimensions

Tube Diameter - OD	X (in.)	
Inch	Imperial	Rigid
1/4	.051	.028
3/8	.063	.039
5/8	.087	.067

Tubing Connection To Units

- Connect the copper tubing to both the indoor and outdoor units (*See Figure 7*).
- Torque each flare nut to specifications (*See Table 4*).
- Cover both tubes individually with 3/8" wall foam insullation.

Figure 7

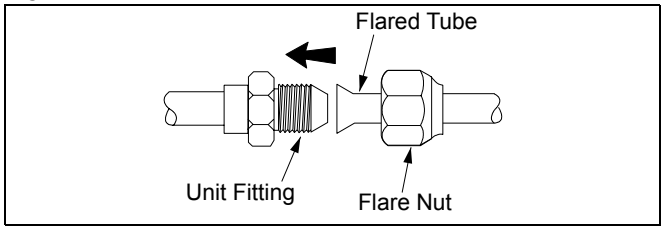


Table 4:

Tube Size (in.)	Torque (ft./lb.)
1/4	13.3
3/8	31.0
5/8	48.0

Electrical Connections

⚠ WARNING

Improper installation can cause severe personal injury or death. Wiring must be done by a qualified technician in compliance with local codes.

- Wiring must be in accordance with all applicable electrical codes.
- Wires must not touch the refrigerant piping, compressor or any moving part.
- All electrical field wiring must be clamped at both the indoor unit and the outdoor unit.

Note: Field install 10A fuse in outdoor unit as shown in wire diagrams for unit sizes 30, 40, and 50.

- See Table 5, and 6 for the number of wires, wire gage and fuse/circuit breaker size required.
- NEC requires an approved electrical disconnect within sight of the unit so that anyone working on the unit can turn off the power and see that its not accidently turned back on. This will require two disconnects, one by the outdoor unit and one by the indoor unit.

Table 5: Wire, Fuse/Breaker Requirements - Cooling Only

Unit Size	**20**	**25**	**30**	**40**	**50**
Voltage - 60Hz. 1 Ph.	208/230				
Power supply wire size	12 ga.	10 ga.	8 ga.	8 ga.	6 ga.
No. of 12 ga. wires between units	2 + gnd.	2 + gnd	3 + gnd	3 + gnd	3 + gnd
Fuse/Breaker size	20 amp.	25 amp.	35 amp.	40 amp.	55 amp.

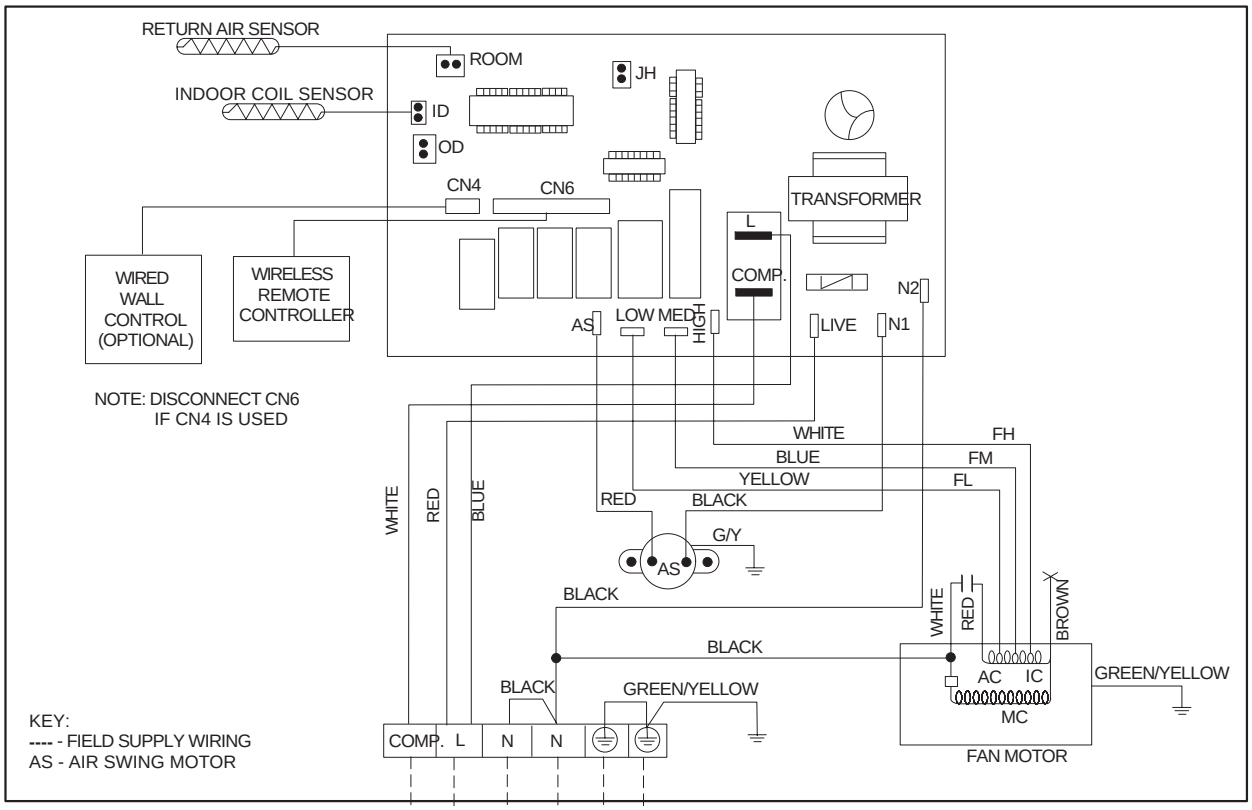
Table 6: Wire, Fuse/Breaker Requirements - Heat Pump Only

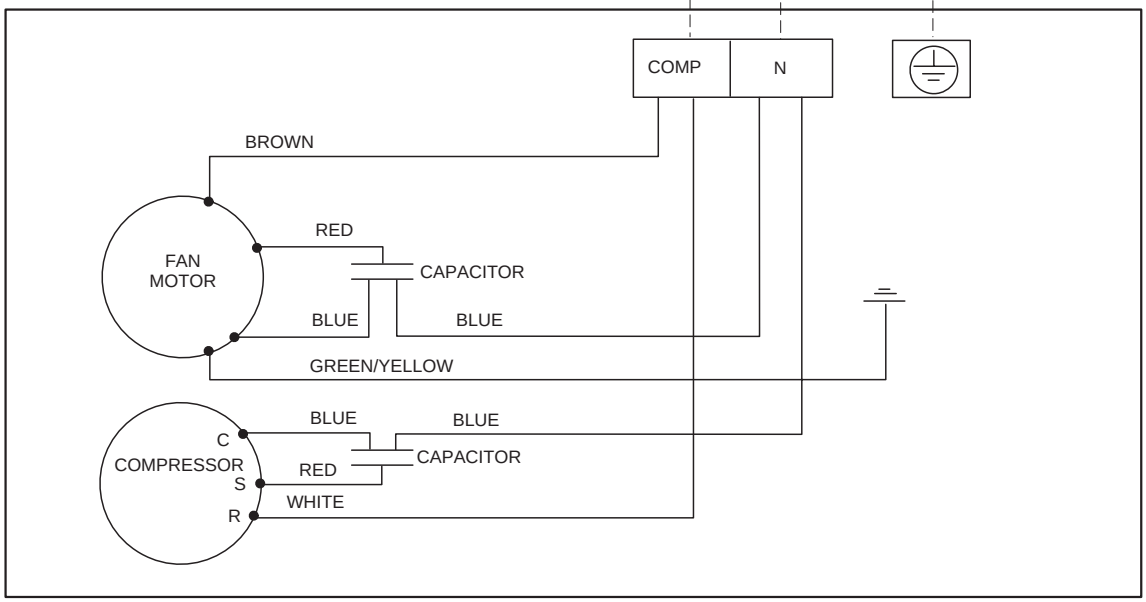
Unit Size	**20**	**25**	**30**	**40**	**50**
Voltage - 60Hz. 1 Ph.	208/230				
Power supply wire size	12 ga.	10 ga.	8 ga.	8 ga.	6 ga.
No. of 12 ga. wires between units*	4 + gnd.	4 + gnd	6 + gnd	6 + gnd	6 + gnd
Fuse/Breaker size	20 amp.	25 amp.	35 amp.	40 amp.	55 amp.

* Not including the low voltage OD coil sensor cable.

Wiring Diagrams

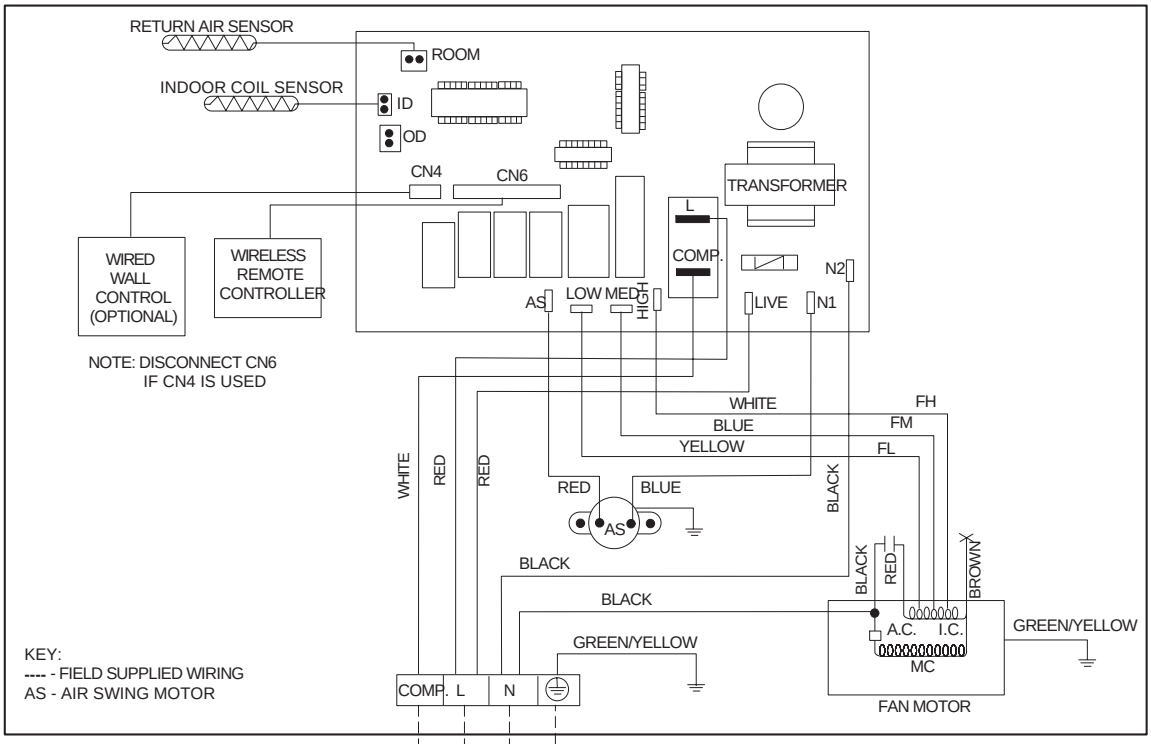
MODEL MCM20D/25D INDOOR UNIT- COOLING ONLY

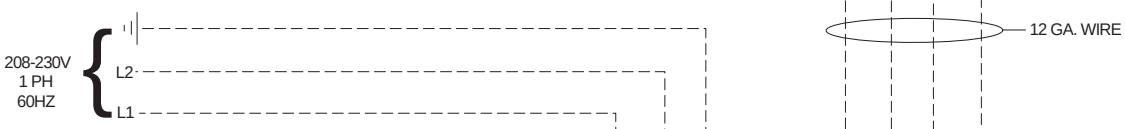


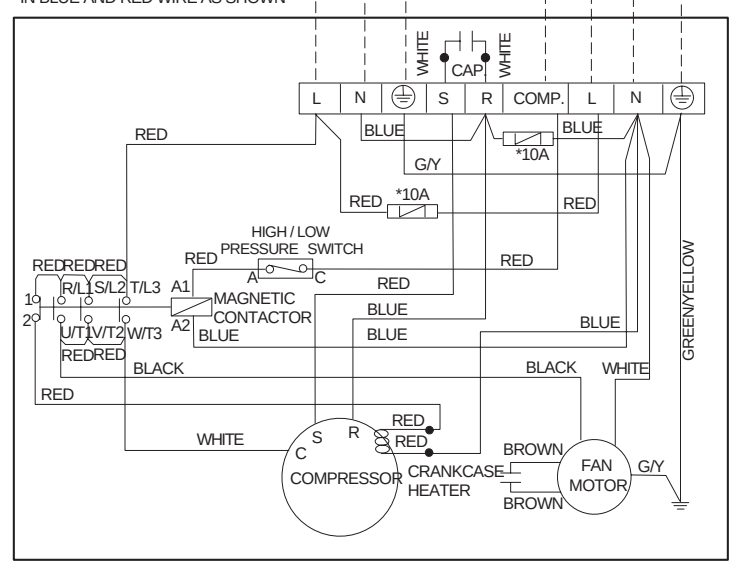


MODEL MLC20B/25B OUTDOOR UNIT

MODEL MCM 030D INDOOR UNIT- COOLING ONLY

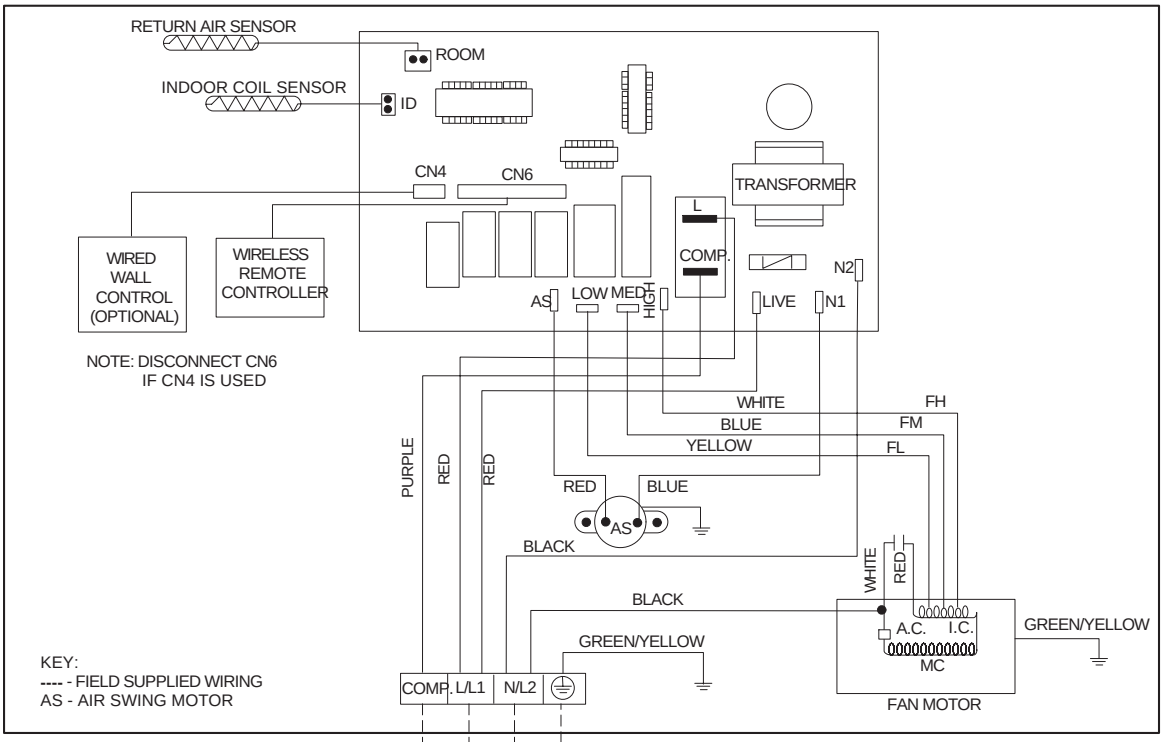


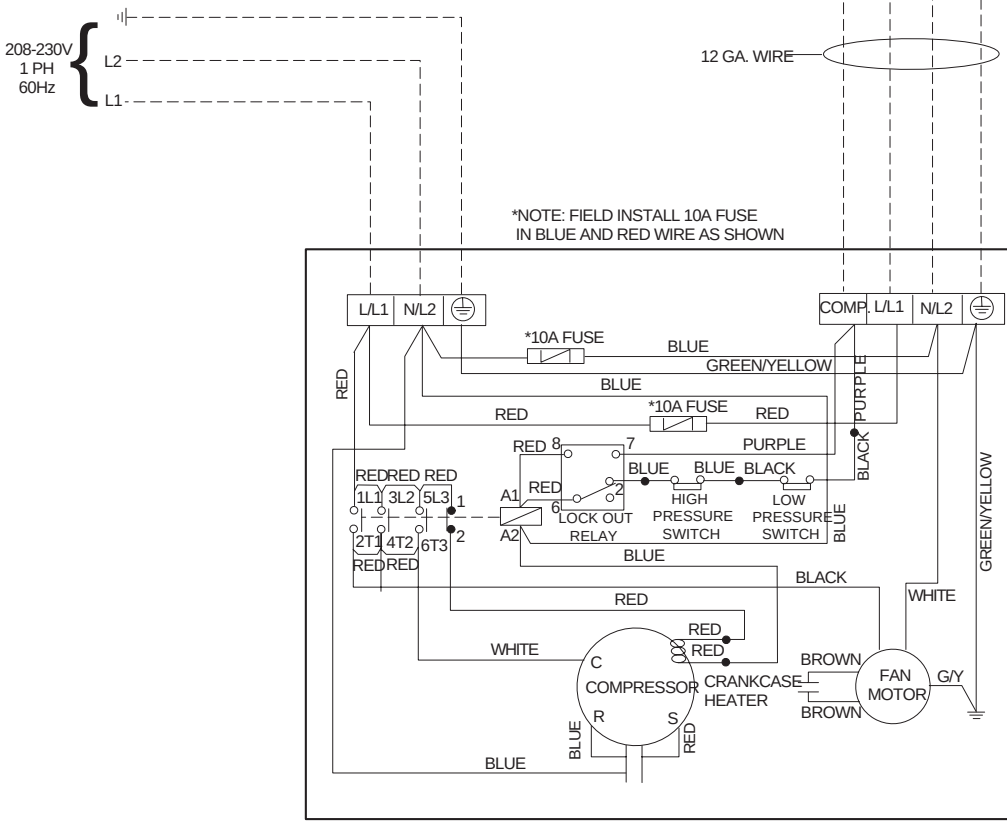




MODEL MLC30C OUTDOOR UNIT

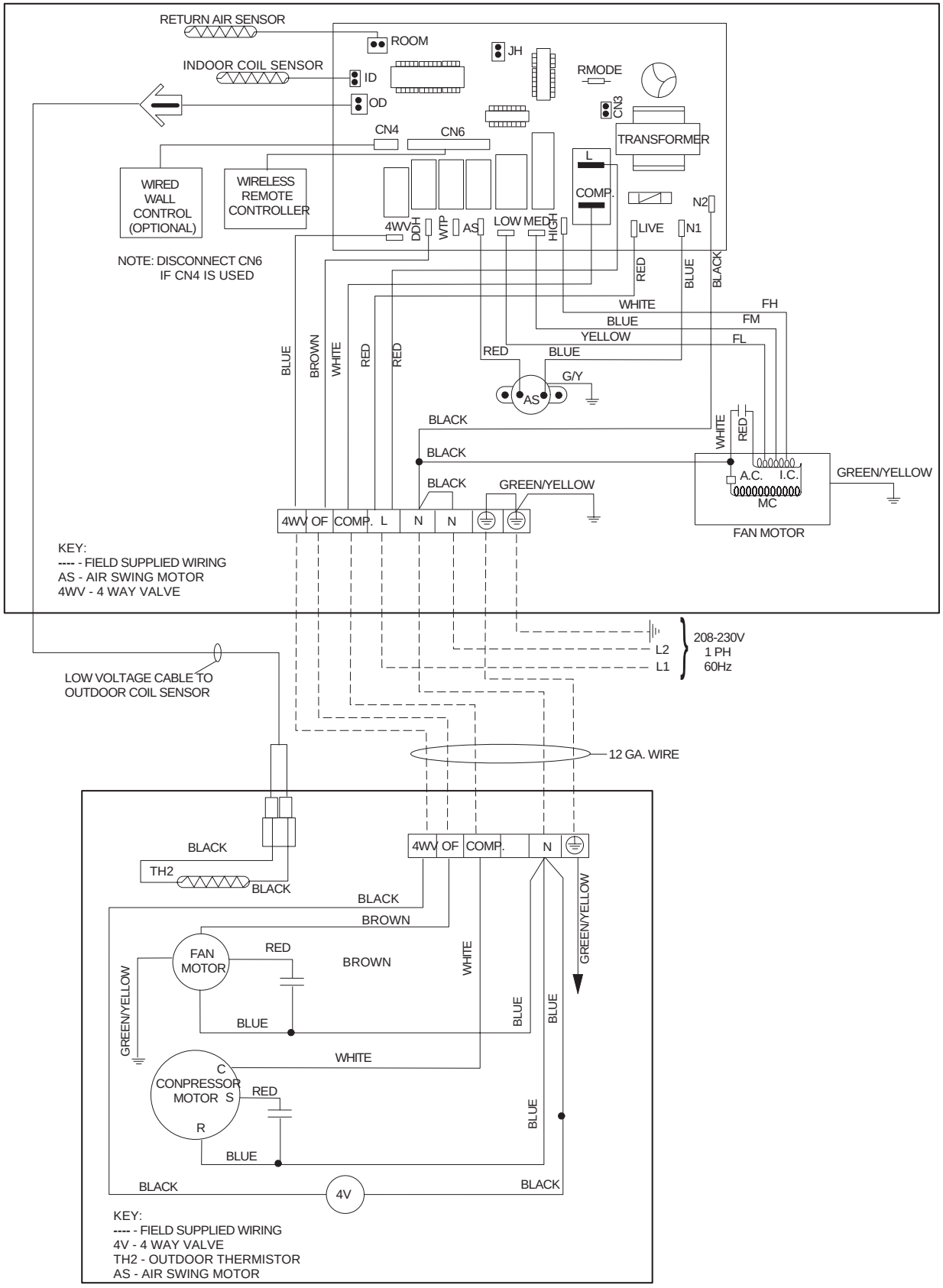
MODEL MCM40D/50D INDOOR UNIT- COOLING ONLY





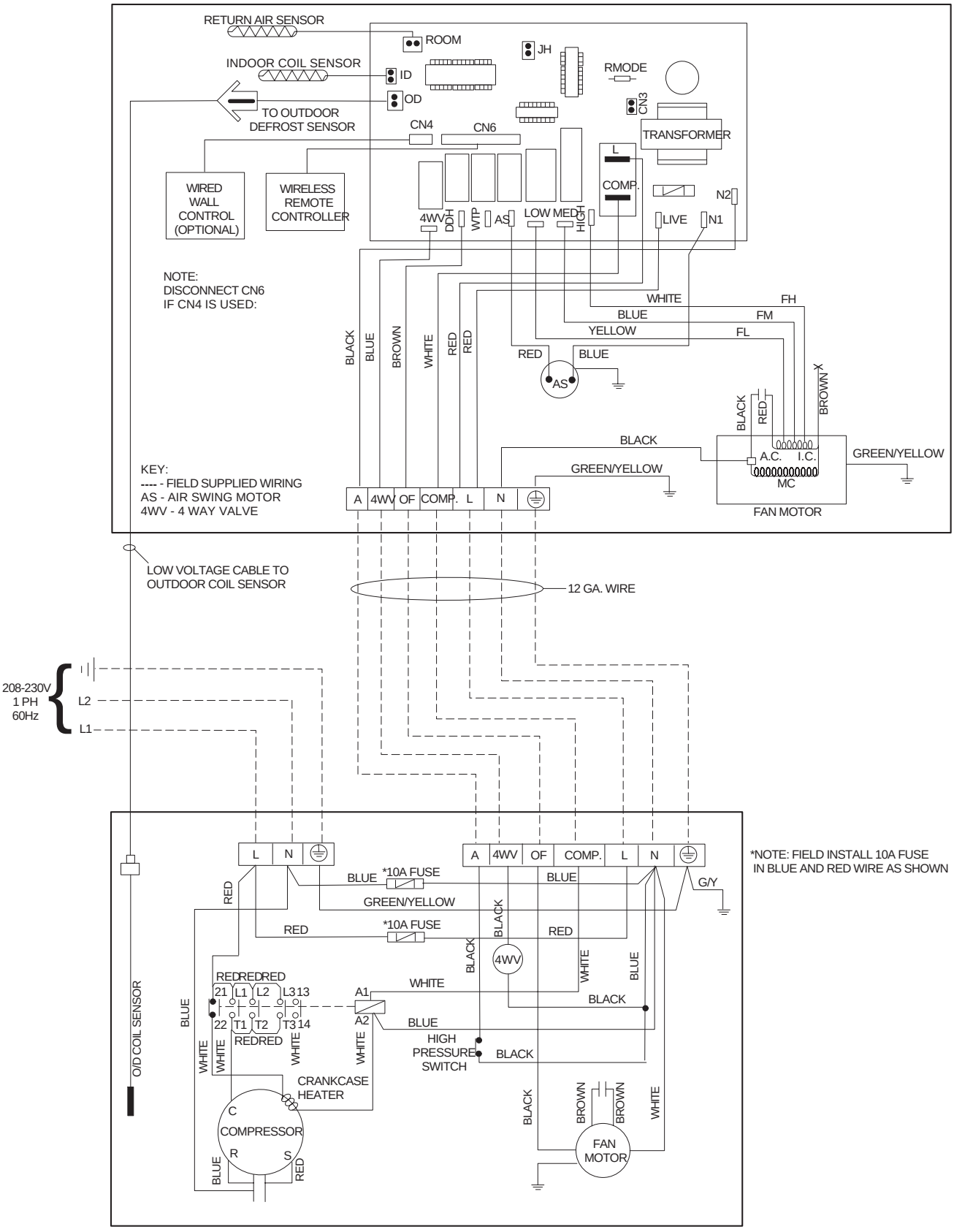
MODEL MLC40C/50C OUTDOOR UNIT

MODEL MCM20DR/25DR INDOOR UNIT - HEAT PUMP



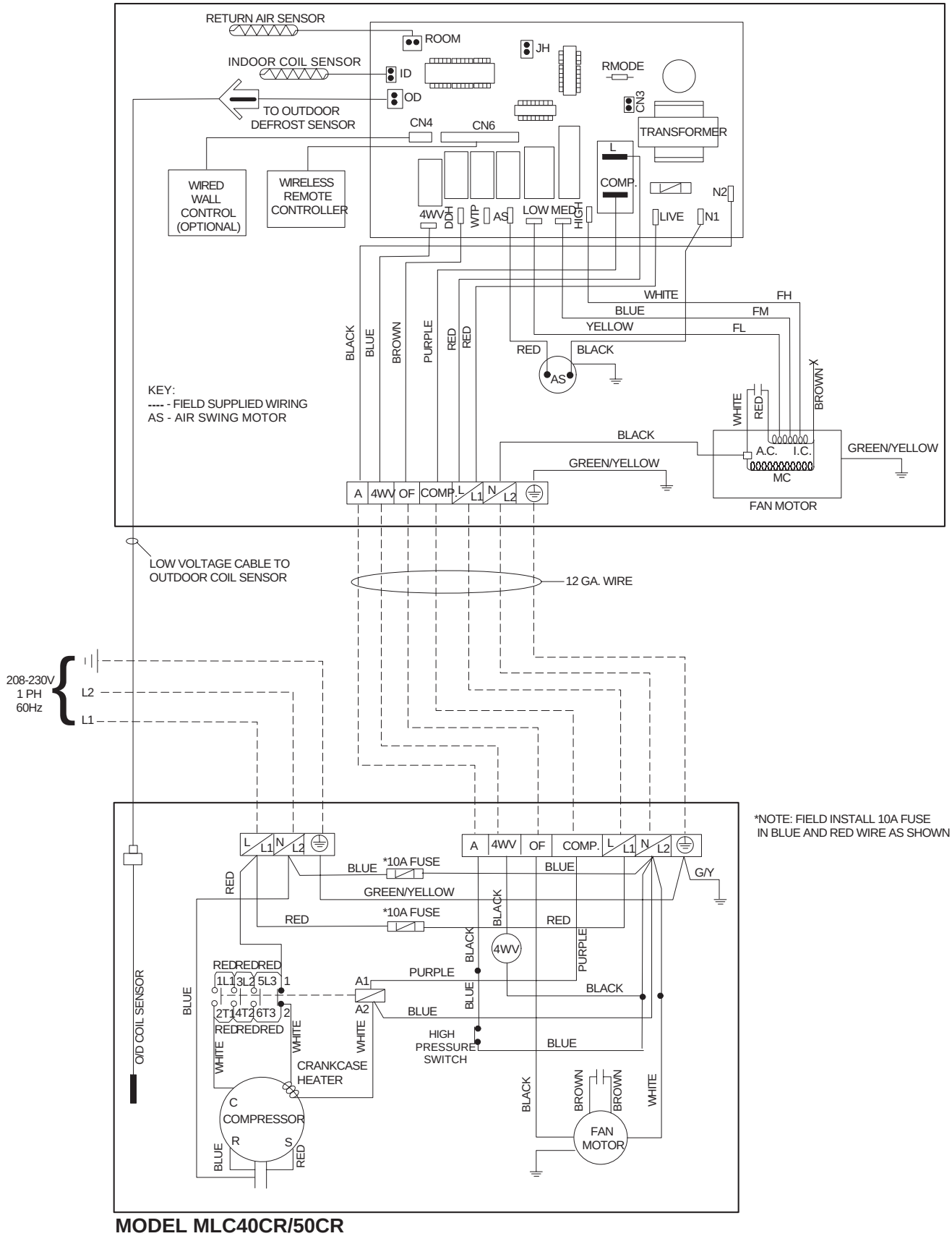
MOEL MLC20BR/25BR OUTDOOR UNIT

MODEL MCM 30DR INDOOR UNIT - HEAT PUMP



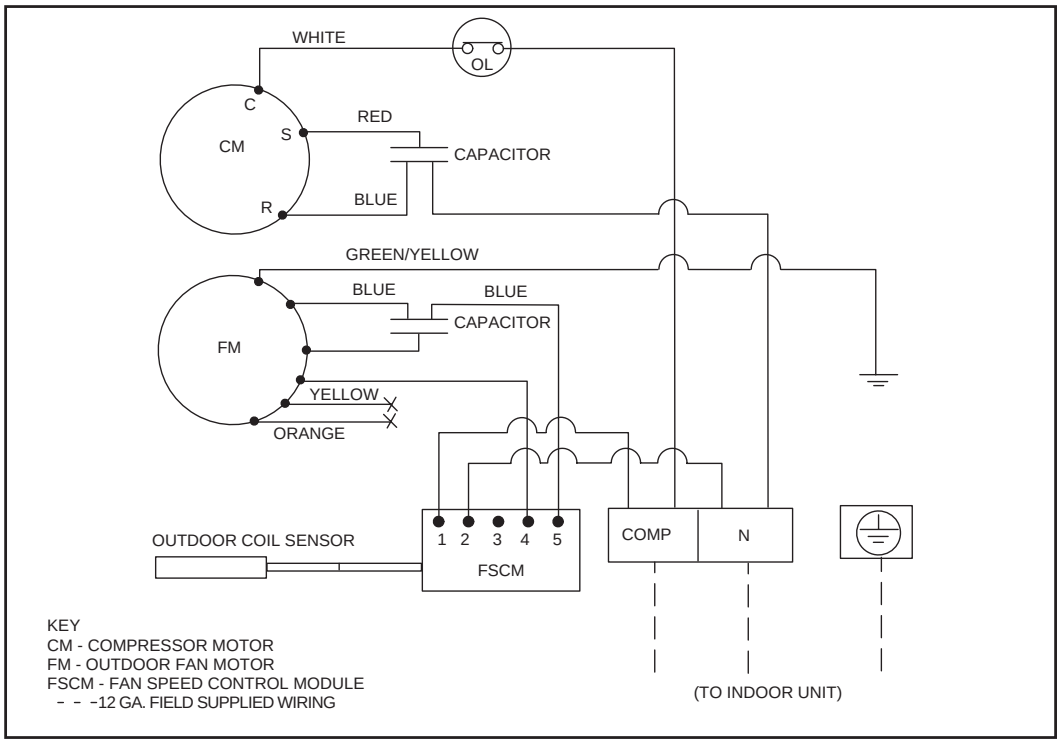
MODEL MLC30CR - OUTDOOR UNIT

MODEL MCM 40DR/50DR INDOOR UNIT

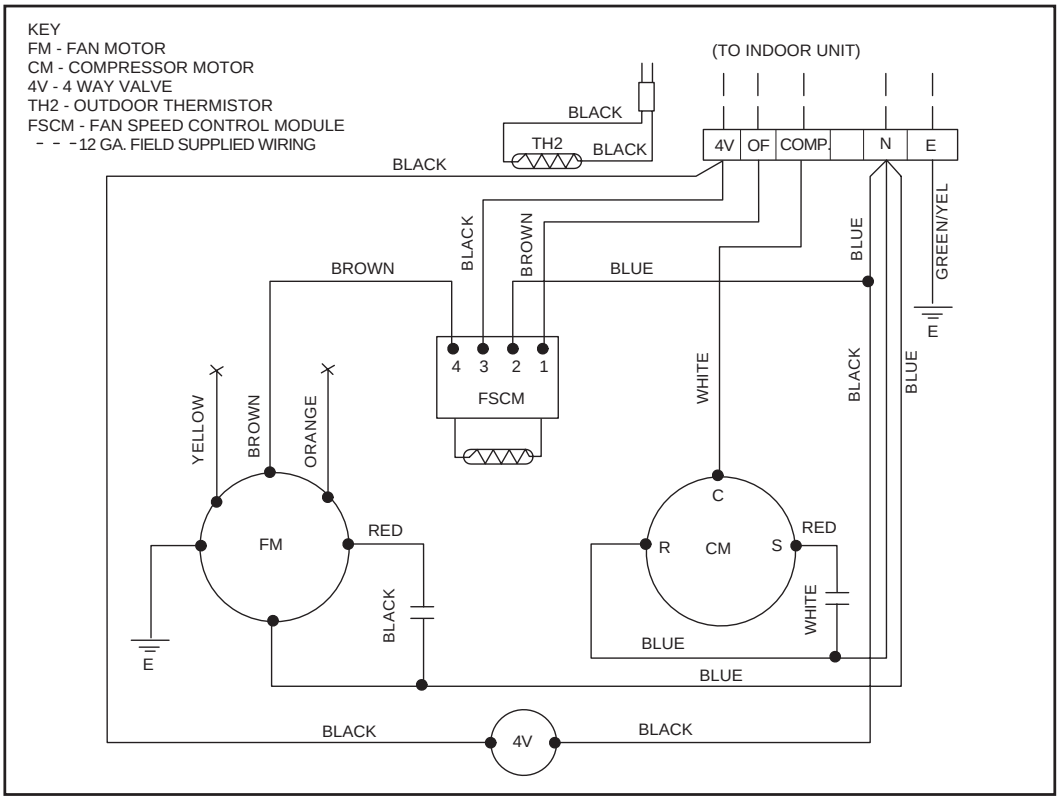


MODEL MLC40CR/50CR

MODEL : MLC 20B - 25B OUTDOOR UNIT - COOLING ONLY
- OPTIONAL LOW AMBIENT KIT (208/230V - 1 PHASE - 60HZ)



MODEL : MLC 20BR - 25BR OUTDOOR UNIT - HEAT PUMP
- OPTIONAL LOW AMBIENT KIT (208/230V - 1 PHASE - 60HZ)



Evacuating and Charging

Evacuating the tubing and the indoor unit

The outdoor unit is pre-charged with refrigerant R-22. The indoor unit and the refrigerant connection tubing must be evacuated as follows:

1. Remove the 3 caps from the valves on the outdoor unit.
2. Connect the center of the charging gauge to the vacuum pump.
3. Connect the charging gauge to the service port of the 3-way valve (*See Figure 9*).
4. Start the pump and evacuate to -760 mm Hg (-29.9" Hg).
5. Close the valve of the changing gauge and stop the vacuum pump.
6. On the outdoor unit, open both valves using a 4 mm Allen wrench (*See Figure 8*).

Figure 8. 3-way Suction Valve on Outdoor Unit

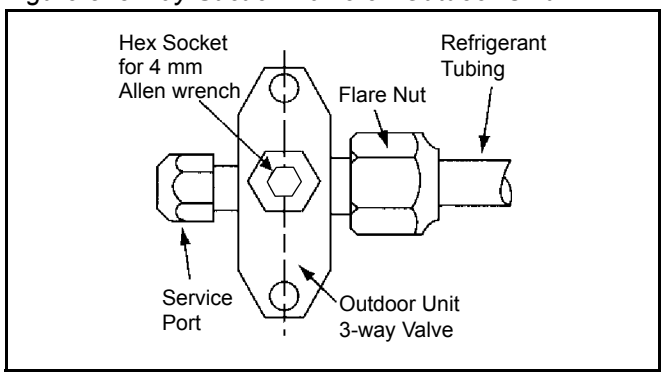
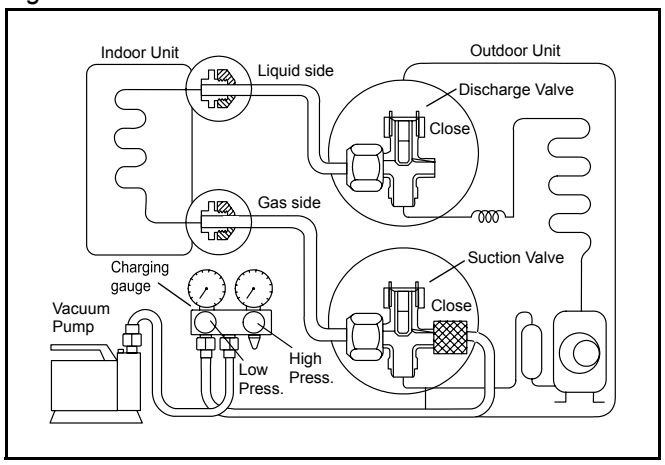


Figure 9 Evacuation Schematic



Additional charge

The refrigerant is pre-charged in the outdoor unit. If the tubing length between the indoor and outdoor unit is no more than 25 ft., then an additional charge after evacuation is not necessary. If the tubing length is more than 25 ft., use additional R-22 as indicated in *Table 7*.

Table 7: Additional R-22 ounces per foot of tubing (when tubing length is more than 25 ft.) and maximum tubing length.

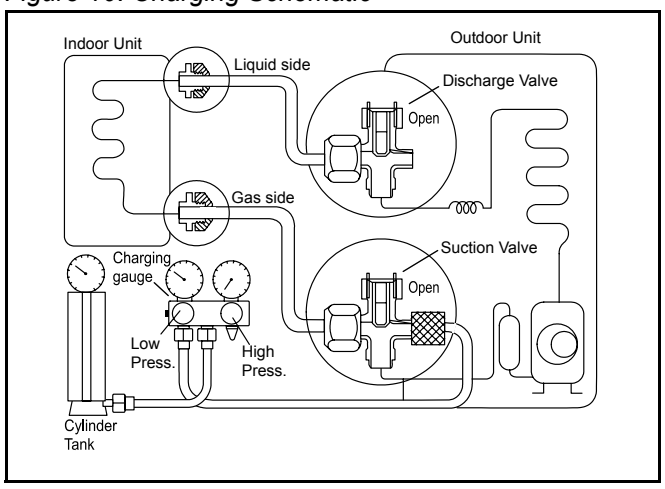
Model	Oz. Per ft.	Max. Length
20D	.16	49’
25D	.40	49’
30D	.53	115’
40D	.55	115’
50D	.55	115’
20DR	.16	49’
25DR	.50	49’
30DR	.53	115’
40DR	.55	115’
50DR	.55	115’

Charge operation

This operation must be done by weighing the R-22 being added thru the service port on the 3-way suction valve. *See Table 7 and Figure 10.*

1. Remove the service port cap.
2. Connect the low pressure side of the charging gauge to the suction service port center of the cylinder tank and close the high pressure side of the gauge. Purge the air from the service hose *(See Figure 10)*.
3. Start the air conditioner unit.
4. Open the gas cylinder and low pressure charging valve.
5. When the required refrigerant quantity is pumped into the unit, close the low pressure side and the gas cylinder valve.
6. Disconnect the service hose from service port. Put back the service port cap.

Figure 10. Charging Schematic



Remote Controller Operation Guide

Transmission source

- The source where the signal is transmitted.

Signal Transmission Indication

- Blinks to confirm the last setting was sent to the unit.

Temperature Setting

- Set the desired room temperature by pressing the buttons to increase or decrease the set temperature.
- The temperature setting range is from 60°F to 86°F.
- Press both buttons simultaneously to toggle the temperature setting between °C and °F.

On/Off Button

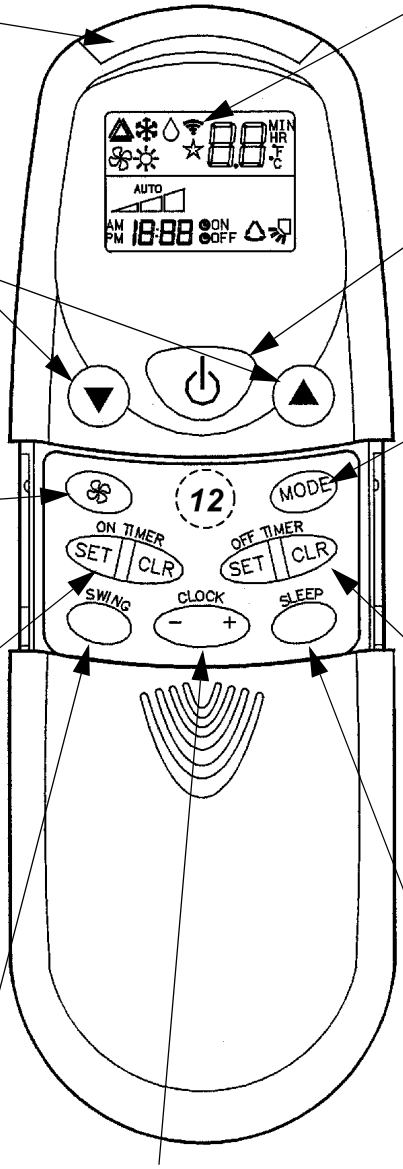
- Press once to start the air conditioner.
- Press again to stop the air conditioner.

Operation mode

- Press the MODE button to select the type of operating mode.
- For cooling only unit, the available modes are : COOL, DRY & FAN.
- For heat pump unit, the available modes are: AUTO, COOL, DRY, FAN & HEAT.

Fan Speed Selection

- Press the button until the desired fan option displays (auto, low, med. or high). "Auto" automatically selects high fan until room temperature is within 2°F of setting, then switches to low fan. Fan runs continuouse in COOL and cycles in HEAT.



OFF Timer Setting

- Press the SET button will activate the off timer function.
- Set the desired off time by pressing the SET button continuously.
- Press the CLR button to cancel the off timer setting.

ON Timer Setting

- Press the SET button will activate the on timer function.
- Set the desired on time by pressing the SET button continuously. If the timer is set to 7.30am, the air conditioner will turn on at 7.30 sharp.
- Press the CLR button to cancel the on timer setting.

Sleep mode setting

- Press the button to activate sleep mode. This function is available under COOL, HEAT & AUTO mode.
- In COOL mode, the set temperature will increase 1.0°F after 30 minutes, 2°F after 1 hour and a total of 4°F after 2 hours.
- In HEAT mode, the set temperature will decrease 2°F after 30 minutes, 4°F after 1 hour and a total of 5°F after 2 hours.

Automatic Air Swing

- Press the SWING button to activate the automatic air swing function.
- To distribute the air to a specific direction, press the SWING button and wait until the air conditioner baffle swings to the desired direction. Press the button again to hold it.

Clock Time Setting

- Press button + or - to increase or decrease the clock time.

Symbol Identification

Cool

Dry

Fan

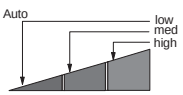
Heat

Sleep

Power

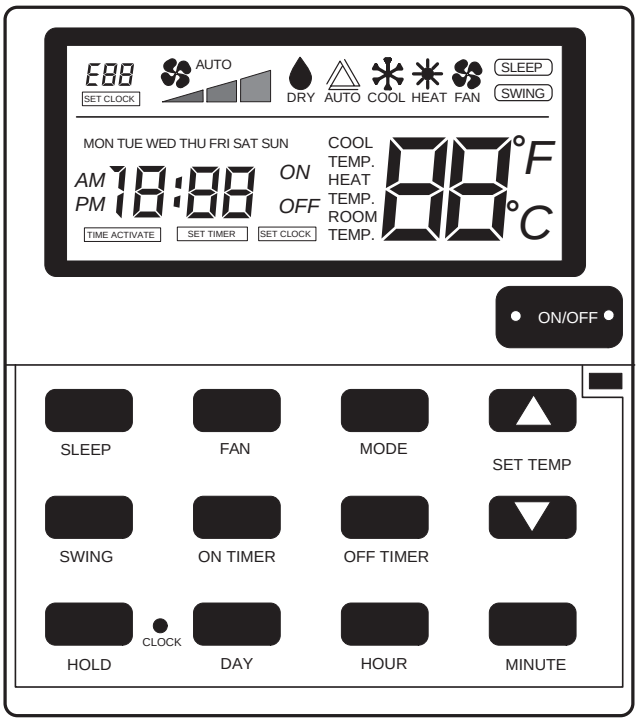
Timer

Auto



Fan Speed

Netware 2 - Wired Wall Control (Optional)



Features:

1. **Modes** - Cool, Heat, Auto, Dry, Fan and Off.
2. **Temperature Range** - 60° F to 86° F. (Press both arrows simultaneously to convert from °C to °F.)
3. **Timer** - Seven day clock capable of a different On/Off time for each day of the week. Note: Hold button is used to temporarily override timer.
4. Shows time of day.
5. Electronic lockout to prevent tampering.
6. **Fan Speeds** - Low, medium, high and auto.
7. **Sleep** - Sets temperature back for sleeping.
8. **Swing** - Swings or positions air baffle for better air distribution.
9. Display normally shows room temperature. (Momentarily shows set point when a change is made.)
10. Heat symbol (✳) blinks while outdoor coil defrosts (heat pump only).
11. Error codes blink on display:
    E1 - Room sensor loose or defective.
    E2 - Indoor coil sensor loose or defective.
    E3 - Outdoor coil sensor loose or defective.
    E4 - Compressor cycling on overload.
    E5 - Low refrigerant charge.

For more detail, see manual that ships with the Wall Control.

Special Features

Dry mode

- Select this mode when the standard Cool mode does not provide sufficient dehumidification. The compressor and indoor low fan will cycle together and will operate for longer periods of time to provide the increased rate of dehumidification. As a result, the room temperature differential may increase slightly.

Heat mode (heat pump only)

- When the unit is switched on from cold start or defrosting cycle, the indoor fan will start to operate only after the coil warms up.
- When the set temperature is achieved, the indoor fan will operate until the coil cools down.

Overheating protection (heat pump only)

- In case the coil overheats (145°F), the compressor will cut out.

Frost prevention

- If the indoor coil starts to frost, an LED light will blink to indicate that the unit is in defrost.

Fan speed and rated cooling capacity

- The rated cooling capacity is provided at high indoor fan speed.
- The cooling capacity is slightly lower when the unit is operating at MEDIUM and LOW fan speed.

Operating Conditions

Cooling

Temperature	Ts (dry bulb) °F	Th (wet bulb) °F
Minimum Indoor	61	52
Maximum Indoor	90	73
Minimum Outdoor	66*	24
Maximum Outdoor	114	75

* 32°F on size 20 and 25, 23°F on size 30, 40 and 50 with optional Low Ambient Kit.

Heating (heat pump only)

Temperature	Ts °F	Th °F
Minimum Indoor	61	—
Maximum Indoor	86	—
Minimum Outdoor	16	21
Maximum Outdoor	75	64

Ts = Dry Bulb Temperature, Th = Wet Bulb Temperature

Overall Checking

Ensure that:

1. The unit has been mounted properly.
2. Refrigerant tubing connections have been checked for leaks
3. Proper wiring and circuit breakers have been installed.

Drainage check:

Check condensate drain for leaks and proper flow.

Test run:

Check the following items:

- Are all electrical plugs firmly inserted into there receptcales?
- Is there any abnormal sound from the unit?
- Is there any abnormal vibration on the unit itself or piping?

Confirm that:

1. Condenser fan is running, with warm/cold air blowing off the outdoor unit. (Cooling only/Heat Pump)
2. Evaporator blower is running and discharge cool/warm air. (Cooling only/Heat Pump)

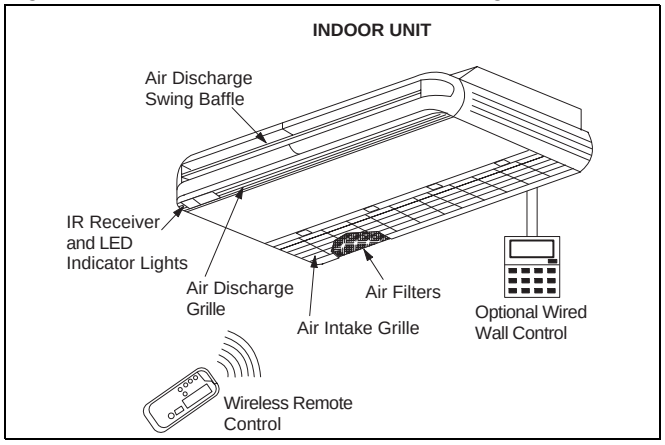
Note: The control incorporates a 3 minute randum start delay in the circuit. Thus, it requires about 3 minutes before the outdoor unit will start.

Unit Indicator Lights

IR signal receiver

When an infrared remote control operating signal is transmitted, the indoor unit beeps and indicator lights confirm acceptance of the signal transmission.

Figure 11. IR Receiver & LED Indicator Lights Location



Wireless Remote Control

Figure 12. LED Indicator Lights Display

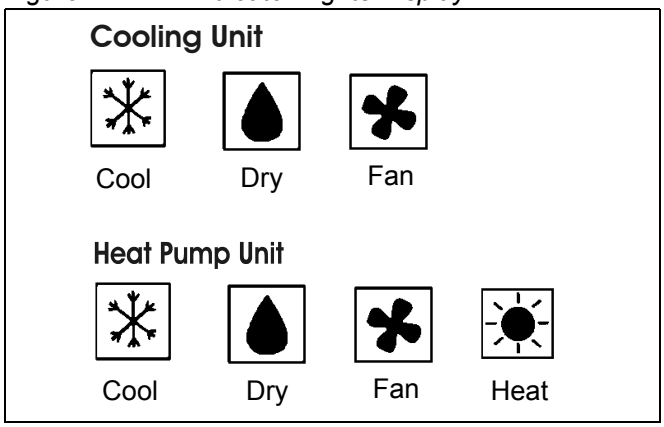


Figure 13: Mode and Diagnostic Chart

Cool	Dry	Fan	Heat	Mode or Fault
○				Cooling mode
	○			Dry mode
		○		Fan mode
			○	Heat mode
◑			○	Auto mode in heating operation.
○			◑	Auto mode in cooling operation.
			◑	Defrost operation
◑				Compressor overload protection
	◑			Outdoor coil sensor contact loose/short
		◑		Room air sensor contact loose/short

○ ON ◑ Blinking

Netware 2 - Wired Wall Control (Optional)

Error codes blink on wall control display as follows:

E1 - Room sensor loose or defective.
E2 - Indoor coil sensor loose or defective.
E3 - Outdoor coil sensor loose or defective.
E4 - Compressor cycling on overload.
E5 - Low refrigerant charge.

Service and Maintenance

⚠ WARNING

Disconnect the electrical power supply before performing any service, maintenance or troubleshooting.

Electrostatic Filters

Pre-charged electrostatic polypropylene filter removes microscopic dust, smoke and small invisible particles to keep the room air clean.

Filter Replacement

⚠ WARNING

Disconnect the main power supply before opening the return air grille.

DO NOT restore power until the grille is closed.

See Figure 14.

Replace the electrostatic air purifying filters every 6 months or sooner if they turn brown.

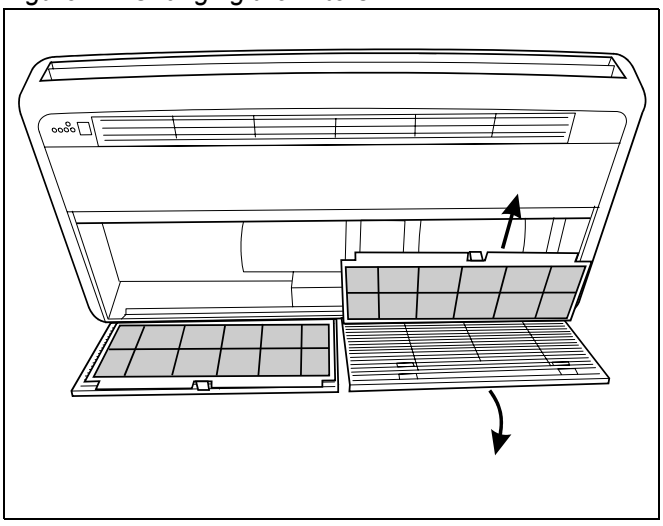
Replacement filters can be purchased from your sales representative or distributor.

Use the new filter immediately once it has been removed from the package.

1. Open the return air grilles and remove the filters.
2. Use a vacuum cleaner or wash with water with a neutral cleaning agent.
3. Rise and dry before installing the filter.

Note: Never use chemicals such as gasoline or paint thinner to clean the filters. Filters will be damaged.

Figure 14. Changing the Filters



Startup After Extended Shutdown

- Inspect thoroughly and clean indoor and outdoor units.
- Clean or replace air filter.
- Clean condensate drain line.
- Clean clogged indoor and outdoor coils.
- Check fan imbalanced before operation.
- Tighten all wire connections.
- Check for refrigerant leakage.

Note: The crankcase heater should be energized for at least 6 hours before starting the unit.

Troubleshooting

If any malfunction of the unit is noted, immediately switch off the power supply.

Check the following chart for possible causes/treatments.

If the trouble persists, please call your local dealer/serviceman.

Trouble	Possible cause/treatment
The compressor does not operate.	Protection against frequent starting. Wait for 3 to 4 minutes for the compressor to start operating.
Fans and compressor do not operate.	Power failure. Check fuse or circuit breaker. Power supply disconnect off. Delay timer may be set incorrectly.
Air flow too low or insufficient cooling/heating capacity.	Dirty air filters. Doors or windows open. Adjust thermostat setting.
Discharge air flow has bad odor.	Smoke, perfume, etc. may have collected on the indoor coil. Clean coil.
Condensation on the return air grille of the indoor unit.	Use dry mode. High humidity in conditioned space. Set temperature too low. Increase temperature setting and operate unit at high fan speed.
Condensate leaking into room.	Condensate drain plugged.
Hissing sound from the unit during operation.	Refrigerant fluid flowing into the evaporator coil. Operate for a while to see if sound goes away.

Service and Maintenance

⚠ WARNING

Disconnect the main power supply before performing any service, maintenance or troubleshooting.

The unit is designed to give long life operation with minimum maintenance required. However, it should be regularly checked and the following items should be given due attention.

Item	Maintenance Procedures	Frequency
Indoor Unit Air Filters	1. Remove the filter before cleaning it. 2. Remove the dust adhering on the filter by using a vacuum cleaner or wash with lukewarm water (below 40°C/104°F) with neutral detergent solution. 3. Rinse well and dry the filter before placing it back onto the unit. **Note. Do not use gasoline, volatile substances or chemicals to clean the filter.**	At least once a month.
Indoor Unit	Clean the grille and panel by wiping it using soft cloth soaked in lukewarm water (below 40°C/104°F) with neutral detergent solution. **Note. Do not use gasoline, volatile substances or chemicals to clean the unit.**	Every year.
Condense Drain Pan and Pipe	Check and clean if necessary.	Every year.
Indoor Fan	Check for abnormal noise.	Every year.
Indoor/Outdoor Coil	Clean the louvers and coil. Be careful not to bend or flatten the aluminium fins. DO NOT use cleaning fluids that might corrode the coil.	Every year.
Power Supply	1. Check the running current and voltage for indoor and outdoor units. 2. Check the electrical wiring and tighten the terminals.	Every year.
Compressor	No maintenance needed if refrigerant circuit remains sealed. However, check for refrigerant leaks at joints and fittings.	Every year.
Compressor Oil	Oil is factory charged. Not necessary to add oil if circuit remains sealed.	No maintenance required.
Fan Motor Oil	All motors are pre-lubricated and sealed at factory.	No maintenance required.

This document contains the most current product information as of this printing. For the most up-to-date product information, please go to **www.DaikinApplied.com.**

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